IN THE CLAIMS:

1-10. (Cancelled)

11. (Currently Amended) A broadcasting apparatus that broadcasts broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the broadcasting apparatus comprising:

a scheduling unit to generate a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program, and

wherein the scheduling unit generates the schedule so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time which is a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program,

the predetermined amount of time in the schedule generated by the scheduling unit is a time period necessary for transmitting the specific program at least once,

the scheduling unit includes a generation unit to generate (a) first messages which specify the specific program and instruct the receiving apparatus to store the specific program in a storing unit within the receiving apparatus and (b) a second message which specifies the

specific program and instructs the receiving apparatus to reproduce the specified specific program stored in the storing unit; and

a transmission unit repeatedly transmits each of (a) the first messages for a duration from the transmission starting time to the transmission finishing time of the specific program, wherein the first messages are multiplexed with data modules containing data of the specific program, and (b) the second message in the reproduction time period of the specific program,

the transmission unit repeatedly transmits contents including scripts for control, for a duration from a transmission starting time of the specific program to a reproduction finishing time of the specific program, the transmission unit transmitting the entire specific program at least once prior to the reproduction starting time of the specific program,

the scripts for control are cached in the receiving apparatus even when the receiving apparatus does not receive an explicit instruction to cache the scripts for control, and

[[and]] the scripts for control perform control so that (a) the specific program is stored in the storing unit within the receiving apparatus in a case ~~of receiving~~ where the receiving apparatus receives the first messages and (b), the specific program stored in the storing unit is reproduced in a case ~~of receiving~~ where the receiving apparatus receives the second message, and

each of the first messages and the second message is transmitted separately from the specific program and the scripts for control in a repeated cycle that is different from a repeated cycle of transmitting the specific program and the scripts for control, the first messages and the second message being multiplexed with the specific program and/or the scripts for control.

12. (Previously Presented) The broadcasting apparatus of Claim 11 wherein the generation unit generates a third message which specifies the specific program and instructs the receiving apparatus to delete the specific program stored in the storing unit.

13. (Currently Amended) A broadcasting method of a broadcasting apparatus that broadcasts broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the broadcasting method comprising:

a scheduling step of generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step of transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step, the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time which is a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program,

the predetermined amount of time in the schedule generated in the scheduling step is a time period necessary for transmitting the specific program at least once,

the scheduling step includes a generation step of generating (a) first messages which specify the specific program and instruct the receiving apparatus to store the specified specific program in a storing unit within the receiving apparatus and (b) a second message which specifies the specific program and instructs the receiving apparatus to reproduce the specified specific program stored in the storing unit,

the transmission step includes repeatedly transmitting each of (a) the first messages for a duration from the transmission starting time to the transmission finishing time of the specific program, wherein the first messages are multiplexed with data modules containing data of the specific program, and (b) the second message in the reproduction time period of the specific program,

in the transmission step, contents including scripts for control are repeatedly transmitted for a duration from a transmission starting time of the specific program to a reproduction finishing time of the specific program,

the scripts for control are cached in the receiving apparatus even when the receiving apparatus does not receive an explicit instruction to cache the scripts for control, and

[[and]] the scripts for control perform control so that (a) the specific program is stored in the storing unit within the receiving apparatus in a case ~~of receiving~~ where the receiving apparatus receives the first messages and (b) the specific program stored in the storing unit is reproduced in a case ~~of receiving~~ where the receiving apparatus receives the second message, and

each of the first messages and the second message is transmitted separately from the specific program and the scripts for control in a repeated cycle that is different from a repeated cycle of transmitting the specific program and the scripts for control, the first messages

and the second message being multiplexed with the specific program and/or the scripts for control.

14. (Currently Amended) A computer-readable recording medium storing therein a program, the program making a computer of a broadcasting apparatus execute steps, the broadcasting apparatus broadcasting broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the steps being:

a scheduling step of generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step of transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step, the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time which is a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program,

the predetermined amount of time in the schedule generated in the scheduling step is a time period necessary for transmitting the specific program at least once,

the scheduling step includes a generation step of generating (a) first messages which specify the specific program and instruct the receiving apparatus to store the specified specific program in a storing unit within the receiving apparatus and (b) a second message which specifies the specific program and instructs the receiving apparatus to reproduce the specified specific program stored in the storing unit,

the transmission step includes repeatedly transmitting each of (a) the first messages for a duration from the transmission starting time to the transmission finishing time of the specific program, wherein the first messages are multiplexed with data modules containing data of the specific program, and (b) the second message in the reproduction time period of the specific program,

in the transmission step, contents including scripts for control are repeatedly transmitted for a duration from a transmission starting time of the- specific program to a reproduction finishing time of the specific program,

the scripts for control are cached in the receiving apparatus even when the receiving apparatus does not receive an explicit instruction to cache the scripts for control, and

[[and]] the scripts for control perform control so that (a) the specific program is stored in the storing unit within the receiving apparatus in a case ~~of receiving~~ where the receiving apparatus receives the first messages and (b) the specific program stored in the storing unit is reproduced in a case ~~of receiving~~ where the receiving apparatus receives the second message, and

each of the first messages and the second message is transmitted separately from the specific program and the scripts for control in a repeated cycle that is different from a repeated cycle of transmitting the specific program and the scripts for control, the first messages

and the second message being multiplexed with the specific program and/or the scripts for control.

15. (Currently Amended) A program making a computer of a broadcasting apparatus to execute steps, the broadcasting apparatus broadcasting broadcast programs, each of which is to be reproduced by a receiving apparatus in a reproduction time period between a reproduction starting time and a reproduction finishing time, the steps being:

a scheduling step of generating a schedule for transmitting the broadcast programs, the schedule including a transmission starting time and a transmission finishing time for each broadcast program; and

a transmission step of transmitting each broadcast program only in the time period between the transmission starting time and the transmission finishing time according to the schedule,

wherein in the scheduling step, the schedule is generated so that (a) as for a specific program among the broadcast programs, a transmission starting time is set at a time which is a predetermined amount of time before the reproduction starting time of the specific program and a transmission finishing time is set at the reproduction starting time of the specific program, and (b) as for a broadcast program other than the specific program, a transmission starting time is set at the reproduction starting time of the broadcast program and a transmission finishing time is set at the reproduction finishing time of the broadcast program,

the predetermined amount of time in the schedule generated in the scheduling step is a time period necessary for transmitting the specific program at least once,

the scheduling step includes a generation step of generating (a) first messages which specify the specific program and instruct the receiving apparatus to store the specified specific program in a storing unit within the receiving apparatus and (b) a second message which specifies the specific program and instructs the receiving apparatus to reproduce the specified specific program stored in the storing unit,

the transmission step includes repeatedly transmitting each of (a) the first messages which specify the specific program and instruct the receiving apparatus to store the specified specific program for a duration from the transmission starting time to the transmission finishing time of the specific program, and (b) the second message in the reproduction time period of the specific program,

in the transmission step, contents including scripts for control are repeatedly transmitted for a duration from a transmission starting time of the specific program to a reproduction finishing time of the specific program,

the scripts for control are cached in the receiving apparatus even when the receiving apparatus does not receive an explicit instruction to cache the scripts for control, and

[[and]] the scripts for control perform control so that (a) the specific program is stored in the storing unit within the receiving apparatus in a case ~~of receiving~~ where the receiving apparatus receives the first messages and (b) the specific program stored in the storing unit is reproduced in a case ~~of receiving~~ where the receiving apparatus receives the second message, and

each of the first messages and the second message is transmitted separately from the specific program and the scripts for control in a repeated cycle that is different from a repeated cycle of transmitting the specific program and the scripts for control, the first messages

and the second message being multiplexed with the specific program and/or the scripts for control.

16. (Currently Amended) A broadcast system for broadcasting television programs and associated interactive television program content, the broadcast system comprising:

a program information holding unit for holding a main program having a broadcast time interval and a data program having interactive program content for the main program;

a scheduling unit for scheduling a data program transmit time interval for transmitting the data program prior to the broadcast time interval,

wherein the scheduling unit generates (a) first messages which specify the specific program and instruct the receiving apparatus to store the specified specific program in a storing unit within the receiving apparatus, wherein the first messages are multiplexed with data modules containing data of the specific program and (b) a second message which designates the receiving apparatus to reproduce the specific program stored in the storing unit; and

a transmission unit [[for]] repeatedly transmitting the data program in a data carousel format during the data program transmit time interval and broadcasting the main program during the broadcast time interval, control scripts that commands (a) a receiving apparatus to store the specific program in a storing unit within the receiving apparatus in a case where the receiving apparatus receives the first messages, and (b) execute at least a portion of the main program where the receiving apparatus receives the second message,

the transmission unit repeatedly transmitting each of (a) the first messages for a duration from a transmission start time of the specific program to a transmission finishing time

of the specific program, wherein the first messages are multiplexed with the specific program, and (b) the second message in a reproduction time period of the specific program,

wherein the data program is transmitted before the main program is broadcast, allowing a receiver to store the data program for execution during the main program,

the control script is cached in the receiving apparatus even when the receiving apparatus does not receive an explicit instruction to cache the scripts for control.

17- 18. (Canceled)